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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,571	10/14/2005	Thomas Vetter	3241-103 (D4695-00126)	2693

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EXAMINER	
YAN, REN LUO	

ART UNIT	PAPER NUMBER
2854	

MAIL DATE	DELIVERY MODE
12/09/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/517,571	VETTER, THOMAS	
	Examiner	Art Unit	
	Ren L. Yan	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21 and 29-35* is/are pending in the application.

4a) Of the above claim(s) *2-10 and 29-35* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 11-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/30/06,6/21/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's election without traverse of invention Group V, claims 1 and 11-21 in the reply filed on 3-31-2008 is acknowledged.

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It was not signed.

The drawings are objected to under 37 CFR 1.83(a) because they fail to show the structure for adjusting the lead frequency as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The specification is objected to because it does not provide sub-headings for the various sections it contains. Further more, it improperly makes specific reference to the claims.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claims 13 and 18 are objected because the recitations of "said conveyer drive means" in claim 13 and "said rotary cycle apparatus" in claim 18 both lack proper antecedent basis.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 11, the recitation of "a duration of the function of said processing station may be predefined by the central controller" is indefinite because it is unclear whether or not the duration of the function of said processing station is positively predefined by the central controller and what structure is required in order to predefine such duration of the function of the processing station by the central controller.

In claim 12, the recitation of "wherein at least one incremental encoder is provided for detecting a rotary position of said objects" is also vague and indefinite because the objects have not been defined to be rotating and there is no structure being defined to rotate the objects.

In claim 13, the recitation of "said conveyor drive means generate rotation..." is unclear what rotation this is referring to.

In claim 14, the recitation of "wherein a lead frequency defining the clock pulse may be preset by said central controller" is indefinite because it is unclear whether or not such a lead frequency is positively required to be preset by the central controller.

In claim 15, the recitation of "said lead frequency may be adjusted" is again indefinite because it is unclear whether or not the lead frequency is required to be adjusted and what structure is required to adjust such a lead frequency.

In claim 20, the recitation of "said lead frequency may be adapted to operating frequencies of said processing stations" is also indefinite for the same reason as stated above.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomason(5,207,153) in view of DE 3729911.

The patent to Thomason teaches the structure of a device for processing the surface of an object as claimed comprising: at least one processing station 16; a conveying unit 11, by which said objects 36 are transported into desired positions at said processing stations; an inherent central controller, by which the functions of said conveying unit and of said processing station are synchronized correlated with transport of said object and wherein said central controller controls each processing station. See Fig. 1 and column 2, lines 1-62 in Thomason for details.

However, Thomason uses a mechanical structure to synchronize the operations of the conveying unit and the processing stations and does not teach the use of clock pulse to achieve the synchronization.

DE 3729911 teaches the conventional use of clock pulse generated by incremental transmitters on the individual processing stations and the interconnected transport devices and controlled by a central control to achieve register control among the various processing stations and to facilitate equipment changes. See the abstract in DE 3729911 for example.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the device for processing a surface of an object in Thomason with incremental transmitters that generate clock pulses along with a central controller in order to predictably achieve the precise synchronization among the operations of the various conveying unit and processing stations and to improve processing registration on the objects being processed.

Regarding claim 11, in so far as structure is defined, Thomason, as modified by DE 3729911 teaches the device wherein by predetermining the duration of the transmission of said clock pulse to a processing station, the duration of the function of said processing station may be predefined by the central controller.

Claims 12-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomason in view of DE 3729911 as applied to claims 1 and 11 above, and further in view of Applicant's Admitted Prior Art(AAPA).

With respect to claims 12 and 13, Thomason, as modified by DE 3729911 teaches all that is claimed including the use of incremental transmitters to generate clock pulses. However, the applied prior art does not specifically state that incremental encoders are used. AAPA teaches on page 1, lines 25-29 of the present specification that incremental encoders are conventionally used at the object supports for detection of the rotary positions of the objects and the signals generated by the incremental encoders are transmitted to the processing stations to control the operation of the processing stations. It would have been obvious to those having ordinary skill in the art at the time of the invention to provide the device of Thomason, as modified by DE 3729911 with the known incremental encoders disposed at the object supports in order to predictably generate the clock pulses indicating the rotary positions of the object so as to enhance the operation of the

conveying drive unit for precise position control of the objects being processed.

Regarding claims 14 and 15, in so far as structure is defined, the above applied prior art teaches a lead frequency defining the clock pulse may be preset by said central controller and such lead frequency may be adjusted as recited.

Regarding claim 16, in so far as structure is defined, the applied prior art would have the lead frequency defining the clock pulses transmitted to a computing unit for synchronizing the rotation of said objects generated by the conveyor drive means to the processing stations in order to achieve synchronization among the various operational units.

With respect to claim 17, in so far as structure is defined, the computing unit in the applied prior art is stationary.

With respect to claim 18, in so far as structure is defined, the computing unit in the applied prior art is arranged on a rotary cycle apparatus.

Regarding claim 19, the applied prior art teaches the lead frequency and the signals of said incremental encoders constitute input quantities for the position control of the respective conveyor drive means.

Regarding claim 20, in so far as structure is defined, the lead frequency in the applied prior art may be adapted to the operating frequencies of said processing stations as recited.

Regarding claim 21, the processing stations of Thomason are inkjet printers. Since the operation of the object conveying unit and the processing stations are synchronized, the lead frequency would have to be the operating frequency of inkjet droplets of the inkjet printing heads in order for the object conveying unit and the processing stations to work in a synchronous manner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ren L. Yan whose telephone number is 571-272-2173. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ren L Yan/
Primary Examiner, Art Unit 2854
Dec. 4, 2008